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Businesses in Asia Pacific at risk because of natural disasters



Rajesh Tiwari
Publisher
rt@iccsr.org

Almost 1,000 companies in Asia-Pacific have signed up to the Task Force on Climate-Related Financial Disclosures (TCFD). It has developed guidelines to help companies disclose climate-related risks and opportunities, including physical risk exposure and carbon emissions.

Wild fires, heat waves, intense flooding and droughts, rising sea levels, and typhoons. These are some of the extreme weather conditions to batter Asia-Pacific this year. Over the past few years, India too has been witnessing extreme weather conditions.

As emissions and global temperatures continue to rise, these extreme weather conditions are predicted to worsen. This makes it vital businesses are equipped to endure an increasingly warming world.

The recent COP26 climate conference, coupled with August's sobering Intergovernmental Panel on Climate Change (IPCC) report, which United Nations secretary-general António Guterres warned was "a code red for humanity," have promoted the need to reduce carbon emissions and confront climate change up the agenda in corporate boardrooms.

According to analysis by S&P Global Sustainable1, vital corporate assets worldwide, including factories, transport networks and power transmission lines, increasingly face threats from catastrophic weather events triggered by climate change.

"There is an urgent need for climate action. We need to rapidly decarbonise global economies. The starting point for this urgent action in my mind was 2015," says Michael Salvatico, head of Asia Pacific ESG business development, S&P Global Sustainable1.

S&P Global Trucost data also reveals in a comparison of industries that physical assets owned by the utilities, materials, energy, consumer staples and healthcare sectors are at the frontline of threats from climate change between now and 2050.

In addition, the report found that, if left unmitigated, water scarcity poses the greatest threat from climate change to all


industries. However, in spite of this it rarely shows up on investors' radars. The analysis also flagged up Asia as the most vulnerable region to climate change.

Across Asia, extreme weather conditions pose huge threats to economies. Rising temperatures will lead to reduced working hours in labour intensive industries, such as agriculture, construction and mining. Rising sea levels and severe flooding threaten to engulf cities and heavily impact industries.

Based on such factors as water, pollution, extreme heat and general vulnerability to climate change, 99 of the 100 most risk-prone cities in the world are in Asia, with the sinking Indonesian capital Jakarta topping the list.

McKinsey Global Institute's report, Climate Risk and Response in Asia, warns assets and infrastructure could increasingly come under threat from extreme weather hazards. For example, in 2050, a 100-year-old flood in Tokyo has the potential to cause up to US\$13.1 billion of direct damage to real estate.

Almost 1,000 companies in Asia-Pacific have signed up to the Task Force on Climate-Related Financial Disclosures (TCFD). It has developed guidelines to help companies disclose climate-related risks and opportunities, including physical risk exposure and carbon emissions.

Companies that carry out assessments to mitigate ESG risks while decarbonising operations can reap the rewards, said Salvatico. Quantifying their carbon footprint is the key first step, before tracking alignment with the Paris Agreement, according to S&P Global's six steps to net-zero. Currently, global companies are on track for 3°C warming, falling 72 per cent short of required emissions reductions to stop global warming from exceeding 1.5°C, S&P Global data finds. 

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Sightsavers India and JSLPS organise an inclusive employment campaign for people with disabilities

Sightsavers India, a development organisation that has been protecting sight and fighting for disability rights launched “Employability Campaign for Persons with Disabilities” in Jharkhand. The campaign was launched by Sightsavers in collaboration with Jharkhand State Livelihood Promotion Society (JSLPS).

This campaign was initiated by Sightsavers and JSLPS in order to create awareness about disability and promote equal employment opportunities for persons with disabilities in private sector companies across India. Regardless of the legal mandates, most organisations avoid recruiting people with

disabilities due to a negative outlook and erroneous assumptions. With the right awareness, experiences, mindfulness and display of positivity, employers can understand that making an inclusive working environment is beneficial for both the organisation and the employees with disabilities.

“People with disabilities still face many hindrances when it comes to fair and equitable labour participation. Employment-related barriers through real can be overcome. Sightsavers India through its social inclusion programme has decided to construct employability as an intrinsic part of the economic strengthening of persons with disabilities, engaging employers and ensuring

that persons with disabilities lead a life of independence and dignity,” said Sightsavers India’s CEO, Mr RN Mohanty.

A manual, Pathways to Inclusive Employment – The Employer’s Guide was released at the event to encourage inclusive practices by private companies.

“Ensuring an inclusive work culture is crucial for integration of disabled persons in workplaces. Corporates have the potential to support disabled persons to find work. They can make a start and with their assistance can make a huge difference in the lives of people with disabilities,” said Ms Nancy Sahay, CEO, Jharkhand State Livelihood Promotion Society.

Cosmo Foundation takes center stage in the fight against Covid-19 pandemic

Helps vaccinate more than 10,000 individuals including elderly inmates, educators, police personal, and other essential frontline workers

Cosmo Foundation, the philanthropic wing of Cosmo Films Ltd. has taken a centre stage and has so far helped vaccinate more than 10,000 individuals including elderly inmates, educators, police personal, and other essential frontline workers

Yamini Jaipuria, Managing Trustee, Cosmo Foundation said, “The suddenness and speed with which Covid -19 gripped the nation had to be met by an equally swift response to combat it. We at Cosmo Foundation believe that India will soon be a Covid-19 free country and we shall remain committed to the goal until such a thing happens,”

She added that the foundation is continuously reaching out to more individuals and healthcare institutions to lend a helping hand.

From helping the frontline workers fight the disease to reaching out to support migrant workers, Cosmo



Ms Yamini Jaipuria - Cosmo Foundation

foundation has become a major backbone in helping the causes that matter. During the lockdown period when the migrants were finding it difficult to head back to their respective hometowns, Cosmo Foundation came forward and arranged for 25 buses in New Delhi to safely transport the migrants back to their homes in Uttar Pradesh.

It has also reached out to the rural Indian population for help during the pandemic and has taken initiatives to make it a point that no child is left orphaned due to this ongoing pandemic.

“We are extremely thankful to Cosmo Foundation for giving us hand wash stands, sanitizers, N95 masks, hand gloves among other equipment for our entire PHC staff. While we do our duty towards the society fearlessly, we feel blessed that organizations like Cosmo are concerned about our safety and well-being.” said Dr. Prashant, Medical Officer, PHC Choranda, Karjan, one of the many places where Cosmo Foundation has lent a helping hand.

Since the beginning of the Covid-19 pandemic, Cosmo Foundation is working tirelessly to be a helping hand for the society from the initiatives at large with medical supplies, distribution of cooked meals, grocery kits, hygiene



kits & safety equipments, running awareness campaigns, providing pre & post COVID guidance, counselling & behavior change, and so on. With an aim to help India become an economy where no individual goes hungry, where each child gets access to education and healthcare, Cosmo Foundation has touched more than 3.5 lakh lives across the country and continues to do so effortlessly and with a zeal to make real change. The foundation, through its efforts, has also provided opportunities to more than 10,000 children by giving them access to digital education.

IIT Madras, IISc, Indian Statistical Institute collaborate with Semantic Web India to continue COVID-19 Data Website Operations

The Indian Institute of Technology Madras, the Centre for Networked Intelligence at the Indian Institute of Science (IISc) and the Indian Statistical Institute (ISI) are collaborating with Semantic Web India, a private technology firm based in Bengaluru, to continue the efforts of a critical COVID-19 Data Website. The new public repository is being hosted at website - www.incovid19.org

www.covid19india.org offered a comprehensive view on the pandemic across India by providing data on confirmed cases, active and recovered cases, tests and fatalities. The portal also recently started showing vaccination administration status for single-dose and fully vaccinated.

The website, which till now was run by volunteers based on a crowd-sourcing model, provided valuable data to the public as well as researchers studying the pandemic. The organisers recently announced that they would stop their operations beyond 31st October 2021.

This new initiative of these Academic Institutions and Semantic Web India will now continue updating the data from 1st November 2021 and make it available at www.incovid19.org.

Explaining this initiative, Prof. V. Kamakoti, Associate Dean (Industrial Consultancy and Sponsored Research), IIT Madras, said, “www.covid19india.org was providing a valuable service by making this data publicly available in one place, which is important to understand the pandemic. It benefitted the general public and researchers studying the COVID-19 spread. Factoring these aspects, the three Institutions are collaborating with Semantic Web India to provide similar data, with some added improvements.”

Further, Prof. Kamakoti said, “The data on COVID-19 is being put out in public domain by various Government entities. This

initiative collates all this data and provides a one-stop-shop in a standardised format for the benefit of researchers and general public.”

The granularity of the data points of www.covid19india.org extended to the districts of most states. The historical data must be preserved in order to support future studies on the pandemic.

Speaking about this initiative, Prof. Siva Athreya, Indian Statistical Institute (ISI), Bengaluru, said, “covid19india.org has been available since the pandemic started and has tracked the pandemic across geographies in India. It has been a valuable contribution. While the website will remain active, they would not be updating the data. IIT Madras, IISc and ISI have joined hands with Semantic Web India to continue updating the data and making it available at a new public repository hosted at www.incovid19.org.”


This new initiative would ensure the availability of data on COVID-19 pertaining to confirmed cases, active, recovered, deceased and tested for all the 36; states and Union Territories of India in an automated and robust manner until March 2022. Further, the consolidated data will be made available to the general audience through a public repository with appropriate APIs (application programming interface) matching those currently available at <https://www.covid19india.org/> to ensure least disruption to applications and consumers of information.

Elaborating on the key objectives of this initiative, Dr. Asha Subramanian, Founder and CEO, Semantic Web India, said, “We are trying to make the process as automated as possible, to provide data continuity at the state/district level wherever possible, using published sources at state government portals, post 31st October 2021.”

Dr. Asha Subramanian added, “We also wanted to harness the wealth of information available on the portal for the last 16 months, to not only to make it as a repository but to bring in some value addition by enabling comparison of historical data. This includes insightful analysis such as comparison studies of various states/districts with similar population demographics and their performance on various parameters including first, second wave and vaccination coverage.”

The new portal www.incovid19.org will continue the efforts of the current Covid19 India portal with historical and newly collated data from diverse sources. Beyond this, the project also envisages creation of a semantic layer on the data to provide enhanced search and analysis.

Further, Dr. Deepayan Sarkar, Associate Professor, Theoretical Statistics and Mathematics Unit, Indian Statistical Institute (ISI), Delhi, said, “From the perspective of researchers who are working with COVID-19 data, it is important that data continue to be available going forward. The goal is to continue collecting the data and making historical data available in a manner that lets researchers keep using their existing workflows with minimal disruption.”

Prof. Rajesh Sundaresan, Dean, Division of Electrical, Electronics, and Computer Sciences and a professor at the Department of Electrical Communication Engineering, IISc, Bengaluru, said, “Kudos to the covid19india.org team of volunteers on their sustained effort. This new initiative would ensure that important data related to the COVID-19 pandemic is vetted, standardised, made machine-readable and available on a single platform that the public, epidemiologists, and policy makers could continue to rely on.” 

GROWING FORESTS

CAN HELP HEAL TROPICAL AQUATIC ECOSYSTEMS: STUDY

In less than a decade, researchers say, reforested land allows bacterial communities to recover, highlighting the importance of reforestation for overall ecosystem recovery, writes **Aimee Gabay**

Aerial views of Buluq Sen village
of Buluq Sen village, Kutai Kertanegara
District in East Kalimantan, Indonesia.
Image: Nanang Sujana/CIFOR, CC BY-NC-ND 2.0.



cientists have long identified a link between livestock production and deforestation, with reams of research showing the detrimental effect of agricultural activities on natural resources. Little is known, however, about how much these practices impact water microbial communities — the tiny organisms that maintain water quality by cycling nutrients and energy.

A new study published in *Scientific Reports* by researchers from the Smithsonian Tropical Research Institute (STRI) focused on just that: the specific impact of different land uses, such as cattle pastures and secondary forests, on bacterial communities in the water column of four streams in central Panama.

The findings reveal key insights into nature's ability to recover from harsh environmental changes, such as land degradation and deforestation, which are largely a consequence of human-related agricultural practices. Reforesting the land, the researchers say, can restore many aspects of water quality, allowing bacterial communities to thrive again, which directly benefits both human health and the environment.

"Microbes are the biological engines that transform the world," Bob Hilderbrand, associate professor at the University of Maryland Centre for Environmental Science, who was not involved in the study, told

Mongabay. "They can be particularly important for removing excess nutrients, such as pollutants, and even for breaking down toxic pollutants."

Assessing the ecological conditions of freshwater streams, specifically by identifying microbe distribution and diversity, helps researchers identify the impact of human-related activities on the environment, and can therefore aid governments and policymakers by informing policy and practice.

"Since water column microbes tend to reflect the surrounding uplands, the results suggest the land is recovering in more ways than just vegetatively, and this is encouraging from the standpoint of ecosystem recovery and restoration," Hilderbrand said.

The project was a collaboration with Agua Salud, an initiative that aims to understand the drivers and consequences of environmental change. Data was collected at the Agua Salud project site, an area

managed by the STRI. Researchers studied streams surrounded by four types of land use: mature forest, secondary forest, silvopasture, and traditional cattle pasture. A mature forest, also referred to as primary or old-growth forest, is an untouched forest, containing little or no evidence of human activity, whereas a secondary forest is a forest that has been disturbed in some way, but has been allowed to recover and regrow.

Silvopasture, on the other hand, is a practice that integrates trees into pastures that are used for agricultural production, often in a mutually beneficial manner. This differs from cattle pasture, which is land used exclusively for domesticated livestock to graze.

From the streams that run through each land type, the researchers collected weekly water samples for more than two years to measure different aspects of water quality, as well as extract and sequence bacterial DNA.

Study fails to establish link between increased deforestation and Covid crisis

Lockdowns and layoffs, and the unprecedented stimulus spending in response to them, were expected to lead to a spike in deforestation, but this wasn't the case, states **James Fair**, Mongabay.com, in this report



Deforestation of Khimki Forest in Moscow, Russia. Image: Daniel Beilinson, CC BY-SA 2.0.

When the Covid-19 pandemic first struck, and national governments responded with lockdowns of varying degrees, conservationists warned it would lead to a surge in illegal logging in tropical countries. They argued that with fewer eyes and ears on the ground for monitoring, combined with a ready supply of short-term labor in the form of unemployed people migrating from cities back to their home villages, the world's rainforests were bound to take a hit. Indeed, environmental campaigners interviewed by Mongabay in June 2020, just a few months into the pandemic, said their organisations had already detected signs of increased illegal activity.

But according to new research in Forest Policy and Economics, different forces acting on the global macroeconomics have largely balanced each other out, so that increases in deforestation in one part of the world have been offset by decreases elsewhere.

Global Forest Watch (GFW) found that tropical forest tree cover dropped by 12.2 million hectares (30.5 million acres) in 2020, a 12 per cent increase over levels in 2019, according to the new paper. That's an area nearly the size of Greece.

But the researchers write that the analysis should focus on a "three-year moving data average, which with the large 2016-18 declines was still dropping in 2020." This is because rates of loss in 2020 were still considerably below those in 2016 or 2017, so the three-year average of 2018-2020 is much lower than the two previous periods (2016-2018 and 2017-2019). Trends in the three largest tropical forest countries — Brazil, the Democratic Republic of Congo (DRC) and Indonesia — continued largely unaffected by the Covid-19 crisis. There were three main drivers on the global economy during the pandemic, all pushing in different directions: supply-side shortages, demand reductions, and then the impact of government financial packages to stimulate economies.

"We find that deforestation-curbing and -enhancing factors so far just about neutralised each other," the authors report.

The paper questions other studies that linked reports of increasing deforestation with the pandemic. A study by WWF Germany, it notes, found that forest disturbance alerts rose by 77 per cent in the period February-June 2020 compared with the same period in the years 2016-2019. WWF attributed the increase to "accelerated loss of forest governance and increased land grabbing during government lockdowns."

Other reports, such as the one by Mongabay referenced earlier, "causally combined" Global Land Analysis and Discovery (GLAD) tropical forest data with anecdotal accounts of deforestation, the paper notes.

"The general problem with these studies' reasoning is timing," the authors write. "Many tropical countries had not yet adopted lockdown measures when registering higher GLAD alerts; in fact, countries with the largest rise in the February/



Women work on a solar energy panel of Chinese solar equipment manufacturer BYD in Campinas, Brazil. Image: REUTERS/Amanda Perobelli

RENEWABLE ENERGY JOBS GREW GLOBALLY IN 2020 DESPITE COVID-19 CRISIS

Clean energy jobs rose to 12 million last year even amid the pandemic but officials say green employment must come with decent conditions and bring in more women.

The number of jobs in renewable energy worldwide increased in 2020, despite the huge economic disruptions caused by the Covid-19 pandemic, with the growing industry holding up better than fossil fuels, international agencies said on Thursday.

In an annual report on clean energy employment, the International Renewable Energy Agency (IRENA) and the International Labour Organiza-

What poverty looks like on your plate

An average human adult makes an average of 35,000 decisions a day. For those at the bottom of the pyramid, these decisions are a matter of life and death. Eco-Business's Junice Yeo speaks to **Lin Huiyi**, the economist-artist behind the award-winning The Poverty Line project, about what survival means to people living on the bare minimum.



The 14 bitter melons in this photograph represent the amount of food a person living on the poverty line in India with a daily budget of less than a dollar (60 cents) could afford to eat. Image: Chow and Lin

What does it mean to live on the poverty line? For the poor in Brazil, one day's income provides a bunch of bananas. In Japan, you could afford two carrots. And for people in Australia, you could get a full roast chicken, or a large bag of jelly beans.

While the poverty line is broadly understood as the minimum income humans need for the necessities of life, in reality many complex factors contribute to the decisions the poor make to feed themselves and their families. Enter Chow and Lin – China-based economist and photography duo Stefen Chow and Huiyi Lin from Singapore. Using portraits of the food people living on the poverty line can afford to buy as the centerpiece, the artists explored the daily choices people face living on the bare

minimum. Their project spanned 10 years, six continents and involved 200,000 kilometers of travel.

Winner of multiple awards in Europe and exhibited in 15 countries and territories, the project was featured at the United Nations Conference Centre in Bangkok in 2018 for a session organised by the UN Economic and Social Commission for

Asia and the Pacific (UN ESCAP).

The Poverty Line is now published as a book and available at the Nobel Peace Center in Oslo. It was recently featured in The New York Times as one of the top 5 visual books recommended.

In this interview, Lin Huiyi talks about the idea behind The Poverty Line, what poverty means to her, and how the Covid-19 pandemic has affected the lives of people living on the bare minimum.



Chow and Lin

How did you devise the concept for the project?

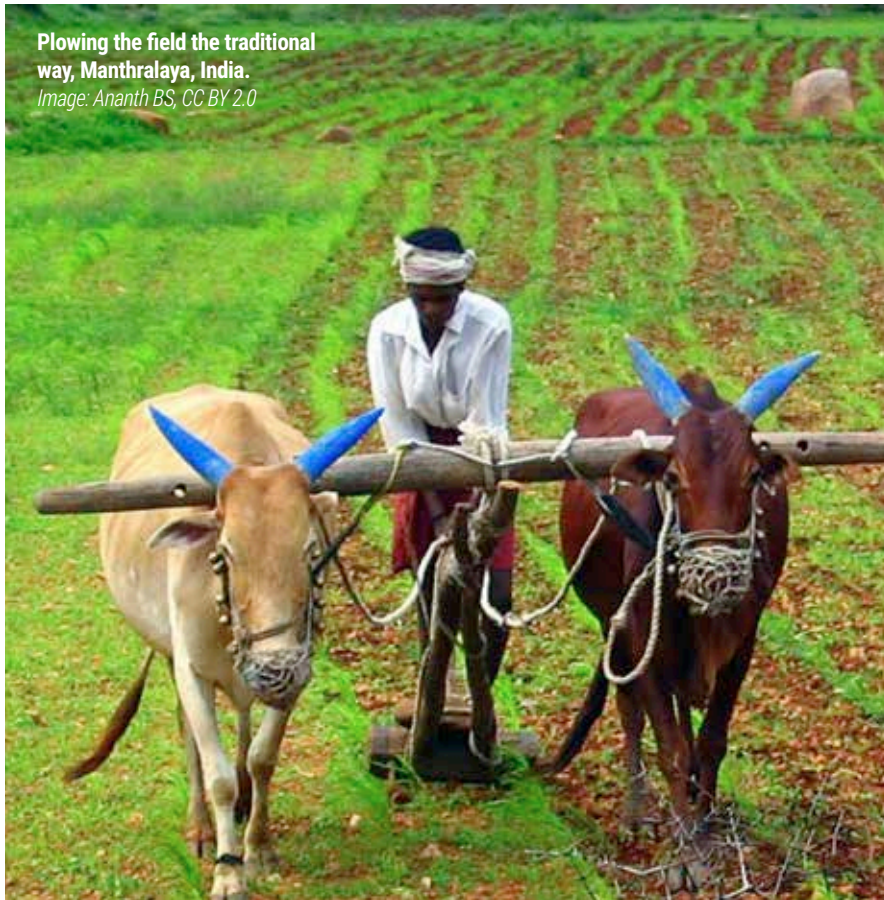
I'm trained in economics and Stefen is a photographer. We moved from Singapore to China in 2008. It was a very exciting time of exploration, understanding China and its relationship with the world.

We became particularly interested in how poverty and inequality

Combating soil erosion enriches farmers in Meghalaya

Plowing the field the traditional way, Manthralaya, India.

Image: Ananth BS, CC BY 2.0



An integrated farming system pioneered to help tackle soil erosion in the northeast Indian state has boosted the profits and resilience of indigenous communities, writes **Varsha Tolgalkar**, *The Third Pole*

The state of Meghalaya, in northeast India, has an acute soil erosion problem. One of the rainiest places on Earth, and with a mountainous geography, it faces some natural challenges, but a growing population and unsustainable farming patterns have led to denuded slopes. New techniques, such as an integrated farming system, offer hope for communities suffering from both man-made and environmental disasters. On a cold and cloudy morning in October,

Thrisilon Rynghang, a farmer from the indigenous Khasi community, sowed cabbages, green peas and carrots on four terrace fields in the Ribhoi district of Meghalaya. She had recently harvested ginger, chillies and turmeric, which she sold at the nearby Bhoirymbong market for over INR 15,000 (USD 200).

Wearing a traditional Khasi costume, or tap-moh khlieh, made of green chequered cloth, Rynghang said she expected a good harvest of guava and papaya this season.

This is a change in fortune for her. Until 2015, she earned little by selling rice and maize grown through jhum cultivation — a traditional slash and burn agricultural technique — on the slopes of various hills. This method, which is now being used in a more densely populated state, is believed to be one of the drivers of soil erosion in Meghalaya.

“To walk up to hills every day and look after crops would be tedious. A good income would not [be assured] every year,” she said.

From jhum to an integrated farming system

In 2015, Rynghang found an alternative when she attended a training programme. The programme was about integrated farming systems (IFS) and was organised by the Indian Council of Agriculture Research (ICAR) at Umiam near Shillong, the state capital. She adopted IFS at one of her plots and now earns INR 50,000-100,000 (USD 650-1,300) per year depending on the quantity of produce and market



Manal Adada, waters plants on the rooftop of a building, as many Lebanese turn to grow vegetables and fruits at home as the coronavirus disease (Covid-19) pandemic hammers the collapsing economy and food costs soar to new heights, in Beirut, Lebanon. Image: REUTERS/Mohamed Azakir

ROOFTOPS TO RAILWAYS: Neighbourhoods race to hit net zero climate goals

From Tokyo to London, community-driven green projects aim to speed up carbon neutrality in cities.

Tackling climate change at a city level—let alone on a global scale—is time-consuming, but neighbourhoods are being targeted as testing grounds for speedy, community-led climate solutions.

Ahead of the UN Climate Change Conference (COP26) in November, engineering company Arup and the C40 Cities network have launched a guidebook for urban planners, policy makers and citizens on how to make city neigh-